

IN THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1.-16. (Canceled)

17. (New) method of providing an air bubble-free body of liquid having an exposed upper surface in a receptacle including a reaction chamber and allowing for monitoring of conditions in the liquid, comprising

inserting a member into the vessel, the member comprising a head portion forming an upper wall of the reaction chamber,

supplying the liquid to the receptacle by causing the liquid to drip or flow into the receptacle from a conduit at a location above the surface of any body of the liquid previously supplied to the vessel, whereby any air bubbles in the liquid being supplied separate from the liquid being supplied before the liquid being supplied enters said body of the liquid,

providing a conduit communicating with said body of the liquid from outside the receptacle,

applying suction to the conduit thereby to withdraw therethrough liquid from said body of the liquid, and

regulating height of said exposed surface by regulating said supplying and withdrawing of the liquid.

18. (New) Method according to claim 17, wherein both said conduits comprise channels formed through said member.

19. (New) Method according to claim 18, further comprising providing a third channel through the member, and applying suction to the third channel thereby to withdraw therethrough liquid from said body of the liquid to assist in the regulating of the height of said exposed surface.

20. (New) Method according to claim 17 or 18, wherein the reaction chamber contains living cells, cell components, DNA, RNA, enzymes and/or antibodies and/or chemical, biochemical and/or immunological reactions are conducted therein.

21. (New) Method according to claim 17 or 18, wherein the supplying and the withdrawing of the liquid are continuous.

22. (New) Method according to claim 17 or 18, wherein the supplying and the withdrawing of the liquid are discontinuous.

23. (New) Method according to claim 17 or 18, wherein said exposed surface is above a first location of said reaction chamber wall,

and the method further comprising lifting said member thereby to raise said reaction chamber wall to a second location above the first location thereof, whereby at least a portion of said body of the liquid which had been above said reaction chamber wall is mixed into the reaction chamber liquid.

24. (New) Method according to claim 17 or 18, further comprising providing a membrane in the reaction chamber thereby to subdivide the reaction chamber into a portion into which the liquid being supplied directly flows and a portion into which the liquid being supplied does not directly flow.

25. (New) Apparatus comprising a receptacle including a reaction chamber and means for supplying the receptacle with an air bubble-free body of liquid having an exposed upper surface, the apparatus being adapted for monitoring of condition, the means for supplying comprising

a member for insertion into the receptacle and comprising, at a lower extremity thereof, a head portion for forming an upper wall of the reaction chamber,

a first conduit for communicating between outside the receptacle and the body of liquid for suctioning liquid away from the body of liquid, and

a second conduit for communicating between outside the receptacle and the interior of the receptacle for supplying liquid to the receptacle, the second conduit having a lower extremity above a predetermined upper level of the body of liquid whereby liquid supplied through the second conduit drips or flows into the body of liquid from above the body of liquid during which dripping or flowing any air bubbles in the liquid being supplied separate from the liquid being supplied before the liquid being supplied enters the body of liquid.

26. (New) Apparatus according to claim 25, wherein

the first and second conduits comprise first and second channels through the member.

27. (New) Apparatus according to claim 26, wherein

the member further comprises a carrier portion from which the head portion depends, and

the second channel extends through the carrier portion and the head portion of the member thereby to communicate with the reaction chamber.

28. (New) Apparatus according to claim 25, wherein
the receptacle comprises a bottom and the receptacle bottom forms a bottom of the reaction chamber, and
the first conduit comprises a channel through the bottom of the receptacle.

29. (New) Apparatus according to claim 27, wherein
the carrier portion comprises a shaft portion through which the first channel passes and from which the head portion depends and, thereabove, a first enlarged portion of a greater lateral dimension than the shaft in a first lateral direction and the second channel passes through the first enlarged portion.

30. (New) Apparatus according to claim 25, wherein
the second conduit comprises a channel through a side wall of the receptacle, said channel being adjacent the member.

31. (New) Apparatus according to claim 29,
wherein the carrier portion further comprises a second enlarged portion of greater lateral dimension than the shaft in a second lateral direction, and
the apparatus further comprising a third channel, the third channel passing through the second enlarged portion for communicating with and suctioning away liquid from the body of liquid at a height of the body of liquid in the receptacle greater than a height of the body of liquid in the receptacle at which the first conduit first communicates with the body of liquid thereby to prevent the body of liquid from overflowing the receptacle.

32. (New) Apparatus according to claim 25, further comprising
at least one of hydrophilic or hydrophobic coatings on surfaces of the apparatus.

33. (New) Apparatus according to claim 25, further comprising
a sensor in the reaction chamber and/or the first conduit for monitoring conditions in the liquid.